ENVIRONMENTAL CHEMISTS

Date of Report: 11/06/97 Date Received: 10/23/97

Project: Metro Self Monitor, PO# M58829

Date Samples Extracted: 10/28/97 Date Extracts Analyzed: 10/30/97

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, ZINC **USING METHOD 6010**

Samples Processed Using Method 3005A Results Reported as mg/L (ppm)

Sample ID	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M58829	0.59	0.37	0.54	0.12
Method Blank	< 0.05	< 0.05	< 0.05	< 0.05

ENVIRONMENTAL CHEMISTS

Date of Report: 11/06/97 Date Received: 10/23/97

Project: Metro Self Monitor, PO# M58829

QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 710120-01 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium		0.59	0.57	3	0-20
Copper Nickel	mg/L (ppm) mg/L (ppm)	0.37 0.54	$0.38 \\ 0.52$	3 4	0-20 0-20
Zinc	mg/L (ppm)	0.12	0.13	8	0-20

Laboratory Code: 710120-01 (Matrix Spike)

	Reporting	Spike	Sample	% F	Recovery	Acceptance	Relative Percent
Analyte:	Units	Level	Result	MS	MŠD	Criteria	Difference
Chromium	mg/L (ppm)	2.5	0.59	109	103	80-120	6
Copper	mg/L (ppm)	2.5	0.37	108	104	80-120	4
Nickel	mg/L (ppm)	5	0.54	107	102	80-120	5
Zinc	mg/L (ppm)	2.5	0.12	106	104	80-120	2

Laboratory Code: LCS

	Reporting	Spike		ecovery	Acceptance	
<u>Analyte:</u>	Units	<u>Level</u>	MS_	MSD	<u>Criteria</u>	<u>Difference</u>
Chromium	mg/L (ppm)	2.5	114	109	80-120	4
Copper	mg/L (ppm)	2.5	115	110	80-120	4
Nickel	mg/L (ppm)	5	115	109	80-120	5
Zinc	mg/L (ppm)	2.5	114	108	80-120	5

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

November 6, 1997

DUPLICATE COPY

INVOICE #97ACU1106-1

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M58829: Results of testing requested by Gerry Thompson for material submitted on October 23, 1997.

FEDERAL TAX ID #(b) (6)

P5 # 710120

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

KJ AI 10.23.97

SAMPLE CHAIN OF CUSTODY

Send Report To: /		i					
Company F-1/AS	KAN COPE	e Work	5	Contact	eneld	"This.y	. 5
Address GEN /	He us	98134					
Address City, State, Zip Scort Phone # 385	2-837-9	FAX #			Date		
SITE NO.		PROJE	CT NAME		PURC	HASE ORDER	#
7575	1	nedno Se	II me	nites 12	5882	> <,	
SAMPLERS (signature)				-, 40,7		CT LOCATIO	N
15				. 32	200	Gith A	luc S
REMARKS						POSAL INFOR	
					Return	e after 30 day: Samples	s
	Date/Time	Type of	# of	Lab	Call to	r Instructions Analyses	
Sample #	Sampled	Sample	Jars	Sample #		Requested	
11155829	10/23/27 11:45	H20	1)	01	CR	00 1	
					1		
;							
					 		
					-		
	<u> </u>						
							·
	11						
SIGNATURE Retinquished by:		RINT NAME		COMPANY		Date	Time
XL fry	- Genele	Thompson		ACW	10/2	3/1-	11.00
Received by:	_ \$	Oborn	F	- B. In	c . 10	123/97	1:150
Relinquished by:	•	v		4 J. C.			
Received by:							

FORMS/COC

06/09/97

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

November 6, 1997

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on October 23, 1997 from your Metro Self Monitor, PO# M58829 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson

Chemist

Enclosures ACU1106R.DOC